

CLAIMS

What is claimed is:

- Sub
A6
1. A safe shutdown device for an uninterruptible power supply (UPS) system, which comprises:
- 5 a switch module, which generates an OFF signal and outputs the OFF signal to a central processing unit (CPU) built in the UPS, the CPU generating a first shutdown signal and a second shutdown signal and transmitting the first shutdown signal to external apparatuses connected to the UPS after the OFF signal being processed by the CPU so as to shut down the external apparatuses;
- 10 a counting module, which starts counting after receiving the second shutdown signal sent out from the CPU that receives the OFF signal and outputs a third shutdown signal when a counting value coincides with a predetermined time value is generated; and
- 15 a shutdown module, which receives the third shutdown signal and turns off the UPS in response to the third shutdown signal.
2. The safe shutdown device for a UPS system of claim 1, wherein the safe shutdown device is installed in the UPS.
3. The safe shutdown device for a UPS system of claim 1, wherein the safe shutdown device is electrically connected to the UPS.
- 20 4. The safe shutdown device for a UPS system of claim 1, wherein the external apparatuses comprises more than one computer.
5. The safe shutdown device for a UPS system of claim 1, wherein the external apparatuses comprises more than one main control computing device.

6. The safe shutdown device for a UPS system of claim 1, wherein the external apparatuses comprises a main control computing device and more than one other external devices.

7. The safe shutdown device for a UPS system of claim 1, wherein the switch module is an ON/OFF switch device.

8. The safe shutdown device for a UPS system of claim 1, wherein the switch module is a liquid crystal touch-control switch device.

9. The safe shutdown device for a UPS system of claim 1, wherein the switch module is a remote controlled receiver.

10. The safe shutdown device for a UPS system of claim 1, wherein the predetermined time value is preset in the counting module.

11. The safe shutdown device for a UPS system of claim 5, wherein the main control computing device has a shutdown signal processing module and a main control computing shutdown module, the shutdown signal processing module receiving the first shutdown signal and sending out a fourth shutdown signal and a main control computing shutdown signal, the fourth shutdown signal being output to other external apparatuses in the connection so as to shut down the external apparatuses, and the main control computing shutdown signal being output to the main control computing shutdown module to turn off the main control computing device.

12. The safe shutdown device for a UPS system of claim 6, wherein the first shutdown signal is output to the main control computing device, which then sends out a fourth shutdown signal to at least one other external apparatus in connection to shut down the power.

13. The safe shutdown device for a UPS system of claim 1, wherein the predetermined time value is preset in the main control computing device and will be output

to the counting module when the main control computing device receives the first shutdown signal.

14. The safe shutdown device for a UPS system of claim 1, wherein the predetermined time value is computed by the main control computing device according to the shutdown times returned from other external apparatuses after the main control computing device receives the first shutdown signal and the computation result is output to the counting module.

15. The safe shutdown device for a UPS system of claim 5, wherein the predetermined time value is preset in the main control computing device and will be output to the counting module when the main control computing device receives the first shutdown signal.

16. The safe shutdown device for a UPS system of claim 5, wherein the predetermined time value is computed by the main control computing device according to the shutdown times returned from other external apparatuses after the main control computing device receives the first shutdown signal and the computation result is output to the counting module.

17. A method for safely shutting down a UPS system, which comprises:

an OFF signal generating procedure in which an OFF signal is generated and output to a CPU of the UPS, and a first shutdown signal is sent out to the external apparatuses connecting to the UPS after the OFF signal is processed by the CPU so as to shut down the external apparatuses;

a counting procedure, in which the CPU sends out a second shutdown signal to start counting after receiving the OFF signal, and a third shutdown signal is generated when a counting value generated by counting coincides with a predetermined time value; and

a shutdown procedure, in which the third shutdown signal is received and processed to turn off the UPS.